UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
Office Action Summary		10/507,144	BECKS, ARI
		Examiner	Art Unit
		Huyen X. Vo	2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 September 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>30-58</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>30-58</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>09 September 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of: .

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>1 sheet</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement filed 9/9/2004 fails to comply with 37 CFR

1.98(a)(2), which requires a legible copy of each cited foreign patent document; each

non-patent literature publication or that portion which caused it to be listed; and all other

information or that portion which caused it to be listed. It has been placed in the

application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

3.   Claims 30-38, 40, and 47-58 are rejected under 35 U.S.C. 102(e) as being

anticipated by Bennett (US 7050977).

4.   Regarding claim 30, Bennett discloses a method for processing the data of an

input data flow containing elements by using a knowledge base including segments, the

method including steps of:

reading a processable part of the input data flow and dividing it into elements (*col. 25, lines 1-10 or col. 17, lines 39-67*);

grouping the processable part of the input data flow into segments of which each segment contains one or several elements (*col. 25, lines 1-10 or col. 17, lines 39-67*);

analyzing the elements of the processable part of the input data flow and on the basis of the analysis result, producing a segment specific classification (*col. 25, lines 1-10 or col. 17, lines 39-67*);

comparing the classification of segments of the input data flow is compared with the classifications of segments of the knowledge base, and a knowledge base segment is associated with the input data flow segment having the corresponding classification (*col. 25, lines 25-53*); and

reporting the result that consists of a number of knowledge base segments associated with the processable part of the input data flow (*col. 26, lines 1-9*).

5.   Regarding claim 47, Bennett further discloses an arrangement for processing data of an input data flow containing elements, the arrangement including memory units for storing the segment-containing knowledge base, look-up indexes, information and an processable part of the input data flow (*referring to figure 1*), means for reading the input data flow (*col. 25, lines 1-10 or col. 17, lines 39-67*), means for dividing the input data flow into elements (*col. 25, lines 1-10 or col. 17, lines 39-67*), means for grouping the input data flow into segments containing elements (*col. 25, lines 1-10 or col. 17, lines 39-67*), means for analyzing the input data flow elements and for producing a

segment specific classification on the basis of the analysis results (*col. 25, lines 1-10 or col. 17, lines 39-67*), means for comparing the input data flow segment classification with the knowledge base segment classifications and for associating equivalent segments with each other (*col. 25, lines 25-53*), and means for reporting the segment classification (*col. 26, lines 1-9*).

6.   Regarding claims 31-33, Bennett further discloses a method according to claim 30, wherein at least one segment contains at least two elements, and that the segment specific classification is defined on the basis of the analysis result of at least two of said elements (*col. 25, lines 4-15, tagging noun phrases or POS words*), wherein the element analysis results are catenated in order to establish a segment-specific classification (*col. 17, lines 50-67*), wherein the classification of the input data flow segment serves as a search key when searching for a knowledge base segment with the same classification (*col. 17, lines 50-67*).

7.   Regarding claim 34, Bennett further discloses a method according to claim 30 so, that after grouping into segments, there is performed a step where the processable part of the input data flow is compared segment by segment with the knowledge base segments (*col. 25, lines 4-53*), and the mutually equivalent segments are associated with each other (*col. 27, lines 50-67, words form search phrases*), whereafter the analysis step is performed only for those segments for which an equivalent knowledge base segment was not found (*col. 25, lines 4-53*).

8.   Regarding claim 35, Bennett further discloses a method according to claim 34, wherein if one input data flow segment obtains, when comparing with the knowledge base segments, several equivalent segments, one of these is chosen by applying at least one of the following criteria: there is chosen a segment with most input data flow elements, there is chosen a segment that the user indicates, there is chosen a segment that has been used most frequently, there is chosen a segment with a semantic classification that corresponds to the classification of the respective part of the input data flow, there is chosen a segment, the semantic classification of the elements of which corresponds to the classification of the respective part of the input data flow (*col. 25, lines 4-53, key phrases are used to search the database*).

9.   Regarding claim 36, Bennett further discloses a method according to claim 30, wherein in the knowledge base, there are included segments with different lengths and partly similar contents, by means of which the processable part of the input data flow is grouped into segments, optimally case by case (*col. 33, lines 10-22, noun phrases of different length*).

10.   Regarding claim 37, Bennett further discloses a method according to claim 30, wherein the grouping of the input data flow into segments is carried out by at least one of the following methods: a chosen segment is a segment already contained in the knowledge base that is an equivalent for the input data flow part by its elements or its

classification, a segment is defined according to the instructions of the user, a language

unit is made into a segment, a phrase is made into a segment, a segment is cut at a

punctuation mark, a segment is cut at given, listed intermediate words, a segment is

formed of a remaining part of the input data flow, when the segments found by other

means are removed from the input data flow part (*col. 33, lines 10-22, noun phrases of

different length are chosen*).

11.   Regarding claim 38, Bennett further discloses a method according to claim 30,

wherein the segments form hierarchical structures where a given higher-level segment

contains information of given lower-level segments, and that the method comprises a

step of associating with the processable part of the input data flow higher-level

segments of the knowledge base, said segments containing lower-level segments of the

knowledge base, associated with the input data flow segments (*col. 29, line 45 to col.

30, line 18, once the first level is identified grammars associated with sublevels are

retrieved to handle user's query*).

12.   Regarding claim 40, Bennett further discloses a method according to claim 30,

wherein the analysis to be performed for the elements is a morphological analysis, and

that as the result of said analysis, there are generated certain features describing said

elements (*col. 17, lines 39-67*).

13.   Regarding claims 48-58, Bennett further discloses an arrangement according to claim 47, including also means for comparing the input data flow segments with the knowledge base segments, including also means for generating equivalent segments containing equivalent elements as a string that forms an output data flow, wherein the arrangement has a connection to an element-generating generator in order to generate elements on the basis of the analysis results, wherein the memory units contain segmenting information for dividing the input data flow part into segments, and order information for defining the respective order of the elements in the input data flow segments, wherein the memory unit contains a knowledge base for storing segments, elements, classifications, equivalent segments and equivalent elements, including I/O interfaces for transmitting and receiving input and output data flows and for establishing connections with other systems and/or users, including means for comparing the whole processable part of the input data flow with knowledge base segments, with any segment size whatsoever, including means for reading and processing mathematical expressions, including means for reading and processing formal languages, including means for reading natural languages, means for dividing natural languages into elements, said elements being words with their affixes, means for grouping a natural language into segments, said segments being units containing words, means for classifying a natural-language processable section on the basis of lexical, morphological, syntactic or semantic analysis, and means for generating equivalent segments containing equivalent words, and having a telecommunications contact with a

corresponding arrangement in order to perform a subfunction (*within the scope of the Bennett reference; or referring to rejections of claims 30-40*).

Claim Rejections - 35 USC § 103

14.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15.   Claims 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett (US 7050977).

16.   Regarding claim 39, Bennett fails to specifically disclose a method according to claim 30, wherein the input data flow segment is subjected to a special treatment according to given instructions in a case where a corresponding segment classification is not found in the knowledge base. However, it would have been obvious to one of ordinary skill in the art at the time of invention to include an error-generating function to inform users that their search is not found so that the users would know what to act next.

17.   Claims 41-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett (US 7050977) in view of Horiguchi et al. (US 6243669).

18.   Regarding claim 41, Bennett fails to specifically disclose a method according to

claim 30, wherein in order to translate data into a target language, for the target

segments there are looked up equivalent segments from the knowledge base of two or

more languages, and as the result flow, there is generated a number of equivalent

segments containing equivalent elements. However, Horiguchi et al. teach in order to

translate data into a target language, for the target segments there are looked up

equivalent segments from the knowledge base of two or more languages, and as the

result flow, there is generated a number of equivalent segments containing equivalent

elements (*bilingual database 816 in figure 8 contains words in a first language in

association with words in a second language*).

        Since Bennett and Horiguchi et al. are analogous in the art because they are

from the same field of endeavor, it would have been obvious to one of ordinary skill in

the art at the time of invention to modify Bennett by incorporating the teaching of

Horiguchi et al. in order to provide services to non-English speaking users.

19.   Regarding claim 42, Bennett fails to specifically discloses a method according to

.claim 41, wherein for those input data flow elements for which equivalents are not found

in the knowledge base, there are generated equivalent elements according to given

analysis results connected to the knowledge base elements and/or by means of a

separate element-generating generator. However, Horiguchi et al. further teach

wherein for those input data flow elements for which equivalents are not found in the

knowledge base, there are generated equivalent elements according to given analysis

results connected to the knowledge base elements and/or by means of a separate

element-generating generator (*referring to Horiguchi reference*).

Since Bennett and Horiguchi et al. are analogous in the art because they are

from the same field of endeavor, it would have been obvious to one of ordinary skill in

the art at the time of invention to modify Bennett by incorporating the teaching of

Horiguchi et al. in order to provide services to non-English speaking users.

20.   Regarding claim 43, Bennett fails to specifically disclose a method according to

claim 41, wherein the output data flow produced when translating data contains

elements of equivalent segments and separately generated elements as a segment

string, so that the internal order of the equivalent elements inside each segment is

defined on the basis of the order information contained in the equivalent segments.

However, Horiguchi et al. further teach wherein the output data flow produced when

translating data contains elements of equivalent segments and separately generated

elements as a segment string, so that the internal order of the equivalent elements

inside each segment is defined on the basis of the order information contained in the

equivalent segments (*referring to Horiguchi reference*).

Since Bennett and Horiguchi et al. are analogous in the art because they are

from the same field of endeavor, it would have been obvious to one of ordinary skill in

the art at the time of invention to modify Bennett by incorporating the teaching of

Horiguchi et al. in order to provide services to non-English speaking users.

21.   Regarding claim 44, Bennett fails to specifically disclose a method according to claim 41, wherein the output data flow to be produced when translating data contains elements of equivalent segments and separately generated elements as a segment string, so that the internal order of the equivalent elements inside each segment is defined by an equivalence information between the segments and their equivalent segments. Horiguchi et al. further teach wherein the output data flow to be produced when translating data contains elements of equivalent segments and separately generated elements as a segment string, so that the internal order of the equivalent elements inside each segment is defined by an equivalence information between the segments and their equivalent segments (*referring to Horiguchi reference*).

Since Bennett and Horiguchi et al. are analogous in the art because they are from the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Bennett by incorporating the teaching of Horiguchi et al. in order to provide services to non-English speaking users.

22.   Regarding claim 45, Bennett further discloses a method according to claim 30, comprising, in order to form a knowledge base, steps of: reading two mutually corresponding input data flow parts and dividing those into elements, classifying those parts of the input data flows that should be processed at a time, for the processable part of the input data flow, looking up segment division, equivalent segments and equivalence information between these on the basis of the segments contained in the

knowledge base and on the basis of their classification, and matching the unsegmented

parts of the processable input data flows that are left without equivalent segments with

each other and forming into segments, and for said segments, generating equivalent

segments and their mutual equivalence information (*within the scope of Bennett*

reference in that input data is processed into phrases/words. Important phrases/words

are combined together to form search queries).

23.   Regarding claim 46, Bennett further discloses a method according to claim 45,

wherein the equivalence information, equivalent segments and segment division of the

segments are generated on the basis of previously in the knowledge base stored

segments and/or their classification (*documents stored in the database are retrieved*

according to search queries).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631.

The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Patrick Edouard can be reached on 571-272-7603. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6/15/07